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LABORATORY BULLETIN

MONTANA STATE DEPARTMENT OF HEALTH

HELENA, MONTANA



David B. Lackman, Ph.D., Editor

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SYPHILIS SEROLOGY - PROFICIENCY TESTING STUDY - 1970

CRITIQUE AND COMMENTS

It has been some time since an explanation accompanied the results of our proficiency tests in syphilis serology. Because of misunderstandings following the 1970 summary, each set of results henceforth will be accompanied by a sheet of "Critique and Comments". Also, the publication of the annual official list of approved laboratories will be delayed until after the results are in from the first proficiency test of 1971 which you will be receiving within the next month.

Proficiency testing in syphilis serology was established by the Venereal Disease Branch - Venereal Disease Research Laboratory (VDRL), Center for Disease Control (CDC). Ten serum samples are distributed each month to State and Territorial laboratories. Performance is rated by VDRL and the results are published by CDC. The last publication is "Summary Report of Qualitative and Quantitative Tests" December 1970. The State Laboratories use the procedure established by VDRL for their intrastate proficiency tests. VDRL sets the standards for satisfactory performance and they are:

"Criteria for Satisfactory Test Performance"

- | | |
|--|-------------|
| (a) REPRODUCIBILITY ON DUPLICATE SAMPLES | 90 percent |
| (b) AGREEMENT WITH RESULTS OF REFERENCE
LABORATORIES ON INDIVIDUAL SERUMS | 90 percent" |

Latest scores obtained by our laboratory follow:

	<u>REPRODUCIBILITY</u>		<u>AGREEMENT</u>	
	<u>Number</u> <u>Samples</u>	<u>Percent</u>	<u>Number</u> <u>Samples</u>	<u>Percent</u>
Fluorescent treponemal antibody - absorption test (FTA-ABS)	40	100.00	50	100.00
VDRL Slide test (Qualitative)	40	100.00	50	97.00
VDRL Slide test (Quantitative)	40	100.00	50	100.00

In Montana we send out 40 samples a year for syphilis serology proficiency testing. Ten samples are sent each quarter and a tabulation of results returned to the participants with specific identification only for those obtained in an individual's laboratory. At the end of the year results on all 40 samples are scored as to Agreement and Reproducibility and those laboratories obtaining a score of 90 percent or above are listed as "approved laboratories" and copies of the list are sent to other states and territories, to clerks of court in Montana and to the Hospital and Medical Facilities of the State Dept. of Health. The control performance for our studies is based on results obtained by the Venereal Disease Research Laboratory. At the top of each quarterly tabulation we list results obtained by the VDRL, the State Laboratory and on the RPR card test.

To correct serious deficiencies resulting from our way of doing things as outlined above, the following changes are effective immediately.

1. The results obtained each quarter will be "scored" and the figure for your laboratory will be given at the bottom of the tabulation of individual results. If it falls below 90, this is your advance warning of trouble.
2. An evaluation sheet will accompany each tabulation. Although this may be repetitious, it should provide hints for improving your technique if you are falling behind in the scores.
3. When annual scores are compiled, particular attention will be paid to the results of the last quarter's tests in the case of laboratories whose composite score is less than 90 percent. If the score for the 4th quarter is satisfactory indicating improvement during the year, the unsatisfactory composite score will be disregarded in compiling the "list".
4. The "official" list will not be published until after results of the first quarter's tests for the ensuing year are tabulated. This will afford an opportunity for a laboratory with problems to correct same. If the latter score is satisfactory, an unsatisfactory score for the previous year will be disregarded in compiling the current list of approved laboratories.
5. If any samples are received broken, please contact Mrs. Pat Maxey, Serologist, Microbiology Laboratory, Montana State Dept. of Health and they will be replaced immediately. Previously we have been counting broken samples as correct in compiling final scores.

Here are a few suggestions for remedying possible deficiencies in your serological tests for syphilis:

1. Check the manual carefully to see if unauthorized shortcuts have inadvertently crept into your procedure. Formerly we were able to supply this manual free of charge but haven't had money to do it in recent years. It is available as follows:

MANUAL OF TESTS FOR SYPHILIS 1969 Edition
Public Health Service Publication No. 411
U. S. Government Printing Office
Washington, D.C. 20402 Price \$3.00

Some procedural difficulties we have noted during laboratory inspections are:

- a. Use of unsatisfactory antigen. One laboratory had a box of antigen on the shelf which had been there for years, nobody knew how many, but it was still being used with unsatisfactory results. If you have doubts about your supply of antigen, contact our serologist giving her the serial number of the lot and the manufacturer and she will look for it on the list of approved antigens which CDC supplies to her. In another case we found that a laboratory employed diluted antigen which had been sitting in the refrigerator until used up; it must be used the day it is diluted.

